

MODULE V

SURFACE IMPOUNDMENTS

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MODULE V - SURFACE IMPOUNDMENTS

V.A APPLICABILITY

1. The Clean Harbors Grassy Mountain Facility (CHGM) is currently authorized to operate Surface Impoundment A and Surface Impoundment B.
2. The maximum operating capacity for Surface Impoundment A is 1,587,759 gallons. The maximum operating capacity for Surface Impoundment B will be 5,000,000 gallons. CHGM shall operate and maintain these surface impoundments as required by Utah Administrative Code (UAC) R315-264-220 through R315-232.
3. Surface Impoundment A is approximately 220 feet on each side. The primary liner system consists of a 60-mil high density polyethylene (HDPE) geo-membrane liner, beneath which is a Geonet. There is one sump which is located on the west side of the surface impoundment. Beneath the sump and the Geonet is a second 60-mil HDPE geomembrane. The geomembrane liner system is installed on a three-foot thick clay liner.
4. Surface Impoundment B will be approximately 361 feet on each side. The primary liner system will consist of a 60 mil HDPE geo-membrane liner and a bottom (secondary) 60 mil HDPE geomembrane liner overlying a compacted clay liner. There will be one sump on the west side of the surface impoundment. The sump will be installed between the primary and secondary liner and equipped with a leak detection system.
5. CHGM shall construct additional surface impoundments and repair Surface Impoundment A or other surface impoundments in accordance with Attachment VI-3, the Construction Quality Assurance Plan for Landfill Cell Construction and Closure.

V.B WASTE IDENTIFICATION

1. CHGM is authorized to store non-hazardous wastewaters received from off-site in Surface Impoundments A and B in accordance with the conditions of this permit.
2. CHGM is authorized to store the following site-generated wastes (excluding PCB-contaminated liquids and sludges) in Surface Impoundments A and B in accordance with UAC R315-264- 220 through R315-264-232 and the conditions of this permit:
 - i. Floor drainage.
 - ii. Multi-source leachate (F039) from RCRA-only hazardous waste cells.
 - iii. Treated liquids.
 - iv. Non-hazardous liquid waste.
 - v. Contaminated run-on and runoff waters.

V.C

GENERAL DESIGN AND CONSTRUCTION OF SURFACE IMPOUNDMENTS

1. CHGM shall design and construct surface impoundments in accordance with UAC R315-264-221.
2. Construction of each surface impoundment shall follow the construction quality assurance (CQA) program identified in UAC R315-264-19 and in Attachment VI-2 of this Permit. The CQA plan shall cover all aspects of design and construction. The Director of Division of Waste Management and Radiation Control (Director) shall approve the final design with installation procedures prior to commencement of construction.
3. The CQA plan shall remain part of the permit throughout closure and post-closure activities.
4. Field changes to the design or construction details may require a modification to the CQA plan and shall adhere to the "Change Control Procedures" in the CQA Plan. The Director will make the determination whether a modification to the CQA plan is necessary, and construction may only proceed after the Director evaluates the impact of the change and approves the permit modification request. CHGM shall document this field change and place a description of this modification in the CQA plan and mail a copy to the Director within seven calendar days of the field change. All field change orders shall become a permanent record and be kept with the CQA document.
5. CHGM may submit all Class 1 field modifications affecting the CQA plan after construction has started to the Director in one Class 1 permit modification after completion of construction. CHGM shall include all "as built" drawings; any changes of materials used for construction; and any changes to the procedures used to construct the surface impoundment in the permit modification.
6. All Class 2 and Class 3 permit modifications affecting the CQA plan, as specified in UAC R315-270-42, shall require Director approval after the appropriate public comment period.
7. Subsequent modifications to the surface impoundment, after completion of the initial construction period, shall be considered either a Class 1, 2, or 3 permit modifications. CHGM shall document and keep all approved modifications to the CQA plan with the CQA plan so future changes, corrective action, or closures can be evaluated with correct information.

V.E

SPECIAL OPERATING REQUIREMENTS

1. CHGM shall always maintain at least three feet of freeboard in each surface impoundment.
2. If a separate liquid phase (i.e., an oil layer) should develop on the surface of the liquid in the impoundment (other than a sheen), CHGM shall remove it within 24 hours of discovery and manage it in accordance with this permit. If the separate liquid phase cannot be removed within 24 hours, CHGM shall follow the reporting requirements in Module II. G.1 of this Permit.
3. All waste placed into each surface impoundment, or any newly constructed surface impoundments, shall meet the Land Disposal Restriction (LDR) standards in UAC R315-268 prior to being placed into the impoundment.
4. At least annually, CHGM shall sample the solids and liquids in the impoundment using industry standard methods and analyze each separately to determine if they exhibit hazardous waste codes D004 - D043 (Toxicity Characteristics) as described in UAC R315-261-24. Should either component exhibit such a characteristic, the provisions of Section V.D.6 shall apply until it can be demonstrated that the solids and liquids in the impoundment no longer exhibit such characteristic. CHGM shall maintain analytical results from all sampling of solids and liquids in the surface impoundments in the Operating Record.
5. CHGM may utilize a typical vacuum container dewatering box to remove solids prior to placement of liquids in the surface impoundment. CHGM shall perform the dewatering activity within secondary containment. CHGM shall sample the solids using industry standard methods and analyze each solid separately to determine if they exhibit hazardous waste codes D004 - D043 (Toxicity Characteristics) as described in UAC R315-261-24. Solids that are a characteristic hazardous waste will be managed in accordance with Attachment II-RCRA-TSCA WAP. CHGM shall maintain analytical results from sampling the solids in the dewatering box in the Operating Record.
6. CHGM shall meet the LDR sampling and testing, residue removal, and recordkeeping requirements of UAC R315-268-4 in the management of hazardous waste in surface impoundments.

V.F

SPECIAL REQUIREMENTS FOR INCOMPATIBLE WASTES

1. CHGM shall comply with all requirements specified in UAC R315-264-230 governing the management of incompatible wastes in surface impoundments.
2. CHGM shall comply with the incompatible waste requirements of UAC R315-264-17 and document that compliance in the Operating Record.

V.G MONITORING AND INSPECTION

1. CHGM shall follow the inspection schedule contained in Attachment II-3 for each surface impoundment.
2. CHGM must have written approval from the Director prior to returning any surface impoundment to service after it has been removed from service for six months or longer. Written approval will require CHGM to have the surface impoundment re-certified by an independent, Utah certified, professional engineer and to submit the certification report to the Director. The report shall include certification that the impoundment dike, including any portion of the dike which provides freeboard, has structural integrity as required by UAC R315-264-226(c) and that the liner is free of damage or signs of deterioration. CHGM shall incorporate the certification report into the Operating Record.

V.H ACTION LEAKAGE RATE

1. The action leakage rate (ALR) for Surface Impoundments A and B is 100 gallons per acre per day (gpad). CHGM shall increase daily monitoring and shall notify the Director within 72 hours for ALR above 100 gpad.
2. Should volumes greater than 200 gpad be documented, CHGM shall submit a written action plan to the Director. The written action plan shall describe efforts to identify the location of the leak(s) and the schedule to identify the location of and the repair of the liner system.
3. No liquid shall be added to a surface impoundment after 200 gpad is recovered from the leak detection system and shall not resume until repairs in the liner have been made (Condition V.G.2).
4. CHGM shall make repairs to the liner system in accordance with the CQA Plan (Attachment VI-2). CHGM shall submit a report, including the CQA documentation, to the Director. Written approval from the Director is required prior to placing a surface impoundment back into service following an exceedance of the ALR.
5. When an exceedance in the leak detection riser occurs, CHGM shall obtain a sample and analyze the sample for semi-volatile compounds and metals. CHGM shall submit the analytical results to the Director within ten days following CHGM's receipt of the data from the laboratory.

V.I REMOVAL FROM SERVICE

1. In accordance with UAC R315-264-227, whenever the 200 gallons per acre per day (gpad) leakage rate is exceeded, or the level of liquids in a surface impoundment drops (and the drop is not known to be caused by changes in flows into or out of the impoundment), or the dike leaks or shows signs of failure, CHGM shall remove the surface impoundment from service and immediately implement the applicable procedures specified in the Contingency Plan, (Module II Attachment II-6).
2. Whenever a surface impoundment is removed from service, as specified in UAC R315-264-227, CHGM shall either repair and recertify the impoundment in accordance with R315-264-227(d) or close the impoundment as required by R315-264-227(e).

V.J CLOSURE/POST-CLOSURE

CHGM shall close a surface impoundment as required by UAC R315-264-110 and R315-264-228, Condition II.O. and Section 5.3 of the Closure Plan (Attachment II-7).